

C
M660 Zerner
1915/16

GENERAL EXTENSION DIVISION

FACULTY

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CYRUS NORTHROP, LL.D., President, Emeritus
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GISLE BOTHNE, M.A., Professor of Scandinavian Languages and Literatures

WILLIAM E. BROOKE, B.C.E., M.A., Professor of Mathematics and Mechanics

OSCAR C. BURKHARD, M.A., Assistant Professor of German

WILBUR H. CHERRY, B.A., LL.B., Instructor in Law

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MAC MARTIN, B.A., Professorial Lecturer in Advertising, General Extension Division
WALLACE H. MARTIN, M.E., Instructor in Mechanical Engineering
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HERBERT WOODROW, Ph.D., Assistant Professor of Psychology

OTTO S. ZELNER, B.S., Assistant Professor of Surveying

HERMANN K. ZUPPINGER, Lecturer in Merchandising, General Extension Division

ADVISORY COUNCIL

DULUTH

JOHN G. WILLIAMS	1910 Alworth Bldg.
GEORGE D. MCCARTHY	911 E. 5th St.
A. H. COMSTOCK	1320 E. Superior St.
B. C. WADE	Y. M. C. A.
R. B. KNOX	1314 E. Superior St.
J. J. MOE	2102 W. Superior St.
W. J. OLCOTT	2316 E. 1st St.
C. A. DUNCAN	1400 Alworth Bldg.
B. P. NEFF	2126 Jefferson St.
W. H. HOYT	313 S. 21st Ave. E.
J. A. STEVENSON	1931 E. 1st St.
L. A. BARNES	831 N. 57th Ave. W.
E. W. BOHANNON, President State Normal School	2323 E. 5th St.
R. E. DENFELD, Superintendent of Schools	18 Oxford
MRS. T. J. DAVIS	405 First Nat'l Bank Bldg.
HON. W. E. McEWEN	Manhattan Bldg.

EXTENSION SERVICE

The Extension Service of the University of Minnesota is organized to include:

A. Evening classes, in Minneapolis, St. Paul, Duluth, and other cities.

1. Courses leading to credit in the College of Science, Literature, and the Arts.

2. Law courses.

3. Courses in Business Administration, Accountancy, and Finance.

4. Afternoon, evening, and Saturday classes in Education.

5. Practical courses in Engineering.

B. Correspondence courses.

C. Extension lectures, singly or in groups, and lyceum lectures, concerts, and entertainments.

D. Agricultural extension, including lectures, demonstrations, institutes, and short courses under the direction of the College of Agriculture.

E. The Municipal Reference Bureau, which compiles and furnishes to city officials information pertaining to municipal government and administration.

F. The Bureau of Visual Instruction, through which loan collections of lantern slides and films are furnished to schools and clubs.

G. University coöperation with local educational effort as exemplified by the "University Weeks."

H. The short course in Retail Merchandising.

EVENING COURSES

GENERAL INFORMATION

ADMISSION TO COURSES

It is not intended that any regulation should debar from the privileges of these courses any person who can pursue them profitably. Those persons desiring credit toward a university degree must of course comply with the regulations laid down by the college in which credit is desired. Those not desiring such credit may be admitted, provided they are sufficiently mature (usually twenty-one years of age) and can satisfy the departments in which they wish to study that they are able to carry the work profitably to themselves and without hindrance to the classes.

CREDIT FOR EXTENSION COURSES

Credit toward a degree will be given students who satisfy the entrance requirements of the college in which credit is desired and who successfully complete any of the extension courses of university grade. This applies to all the courses listed under academic or collegiate courses, unless otherwise specified. It also applies to nearly all of the business courses. The courses listed under Engineering do not carry credits. The statement in regard to credit for Law courses will be found on page 43. Such credits will be recorded upon matriculation in the University. Courses requiring one evening (two hours) a week for recitation normally carry two credits. Those requiring more time usually carry correspondingly more credit.

The statement concerning credit for the Certificates in Accountancy, in Finance, and in General Business will be found on pages 23, 24, and 25.

Students must indicate at the time of registration whether or not they desire university credit in the courses pursued.

Regulations Concerning Credit in the College of Science, Literature, and the Arts

1. All courses for which credit is given in the College of Science, Literature, and the Arts must be authorized with the credits by the Advisory Committee.* But credit shall be given only to those extension courses which are conducted in essentially the same manner as the corresponding courses in the University and which are carried on under similar conditions as to attendance, term's work, quizzes, and examinations.

2. Each credit course shall be directly in charge of a member of the Faculty.

3. Any regularly enrolled university student successfully completing an approved course shall receive the appropriate credit.

4. Any person qualified to be admitted to the University shall receive a certificate upon satisfactorily completing an approved course. The certificates entitle the holder to the corresponding university credits whenever he has earned thirty credits in residence. The Registrar or the Administrative Board shall in all cases pass upon the qualifications of the student.

5. No credits shall be given to students not properly qualified to be admitted to the University as regular students.

6. The maximum credit towards a degree for work done in Extension courses shall not exceed one half the unit hours required for graduation. At least twelve credits in the major subject shall be completed in regular college classes and of these six must be from starred courses.

7. Credit for an amount not exceeding one quarter of the unit hours required for graduation may be given at the University of Minnesota to students of such other Extension Schools or Departments as may be approved by the Advisory Committee, provided that such credit shall be subject to the same provisions as govern credits in the General Extension Division of the University of Minnesota.

University Students and Correspondence and Extension Work

1. No university student may enroll for a correspondence or extension course for the purpose of removing a condition or failure.

2. No university student may enroll for an extension course if this would increase his credit hours beyond what the rules allow.

FEES

Collegiate courses meeting one evening a week require a fee of \$5.00 a semester of sixteen weeks. For Collegiate courses meeting two evenings a week, the fee is \$10.00 a semester.

For Business courses, except where otherwise noted, the fees are: For a single course, \$7.50 a semester; for two courses taken simultaneously, \$12.00 a semester; for three courses taken simultaneously, \$15.00 a semester; for four courses taken simultaneously, \$20.00 a semester.

For Engineering courses the fees is \$5.00, \$7.50 or \$10.00 a semester as indicated in the description of the several courses.

The fee does not include the cost of texts or material. The cost of these items varies from \$1.00 to \$3.00.

The requirements relative to the Law courses accompany the announcement of those courses in this bulletin. (See page 42.)

All fees are payable at the time of registration, and registration should not be deferred longer than the second meeting of the class. Checks should be made payable to the University of Minnesota. No FEE WILL BE REFUNDED ON ACCOUNT OF WITHDRAWAL FROM ANY COURSE, unless application for refund be made within ten days after registration.

Special arrangements are made with organizations, clubs and individual business concerns, whereby instruction may be given to groups of students within the organization at a sum which will somewhat reduce the individual rate per member.

PLACES FOR CONDUCTING CLASSES

The classes in Law will be held in the Law Building on the University campus. Most of the classes in Engineering will be held in the Main Engineering Building, Electrical Engineering Building, or the Mechanical Engineering Building.

Other classes in Minneapolis are conducted at the University, at the Public Library, at the City Hall, and in some of the public school houses. Definite locations for each class will be announced in a circular to be published about September 10.

In St. Paul the work will be carried on in coöperation with the St. Paul Institute of Arts and Sciences at the Mechanic Arts High School or in the City Normal School. Additional accommodations will be provided for in some cases.

NUMBER FOR WHOM CLASSES WILL BE ORGANIZED

Classes will not be organized for a smaller enrollment than twelve, and in some courses a larger registration will be required.

TIME OF MEETING

Classes ordinarily meet at 7:30 and dismiss at 9:30. The semester is sixteen weeks long.

ENROLLMENT

Registration takes place during the week preceding the organization of classes (September 20-25). Students may also register with the instructor at the class.

PROGRAM OF CLASSES

Folders will be issued about September 10, giving the program of classes and schedules of meeting places. It should be understood that not all the courses listed in this bulletin are given in any one year. Final announcements may be found in the special folders. Folders will be issued for the Collegiate courses, the Business courses, the Engineering courses, and the Law courses.

LOCATION OF EXTENSION OFFICES

After September 1, 1915, the offices of the General Extension Division may be found in their new location on the ground floor of the Main Engineering Building on Church Street, just north of Washington Avenue S. E. To telephone the office, call N. W. East 2760 or T. S. Spruce 257 and ask the University central for the General Extension Division.

COURSES OF INSTRUCTION

The courses of instruction naturally group themselves into four divisions, viz., (1) those corresponding to the regular college courses given in the College of Science, Literature, and the Arts, and conveying credit toward a degree from that college; (2) those furnishing a preparation for Business (most of which also carry credit toward a degree from the above college); (3) Engineering courses; and (4) Law courses. The descriptions of courses will therefore be grouped in this order. The first group will be designated Collegiate courses.

DEPARTMENT OF COLLEGIATE INSTRUCTION

The following courses are given Extension students with two purposes in view. First, an opportunity is afforded those who are candidates for degrees, but who are unable to pursue their entire college course in regular residence, to complete a part of their work while otherwise occupied during the day.

Second, the advantage of university training in cultural subjects is offered those who can devote one or more evenings a week to such work, regardless of any desire for university credit.

The General Extension Division is now prepared to offer the following evening courses. Others will be given provided a sufficient registration is assured, usually twelve. Those interested in forming such classes are advised to correspond with the Director.

A special folder announcing specific dates and places for holding classes will be issued early in September. This folder will be sent to all requesting it.

BOTANY

1 (1*). BOTANY I. A university course in general botany, designed to meet the needs of students who have not the facilities of a regular laboratory. The course includes field study of autumn flowers, of weeds, trees, and shrubs, and of mushrooms and toadstools; the preparation of herbs and woody plants in garden and nature for winter; the migration of seeds and fruits; the gross structure of plants; the physiology of germination and growth. Four credits (two evenings a week). Fee, \$10.00 a semester. CLEMENTS.

2 (2). BOTANY II. A continuation of Course 1, taking up the study of the physiology of the adult plant, its methods of making and assim-

* The number in parentheses is that of the corresponding course in the regular University bulletins.

lating food, and its relations to water, light, temperature, etc.; the use of plants in every-day life; classification and relationships of flowering plants; principles of propagation and plant breeding; vegetation of North America. Four credits (two evenings a week). Fee, \$10.00 a semester. CLEMENTS.

- 3 (119-120). INDUSTRIAL BOTANY. A study of plants as materials and agents in every-day life, with especial emphasis upon their uses in the home, in the industries, and in agriculture and forestry. Attention will be paid to the origin, distribution, and cultivation of useful plants, the nature and use of the products obtained from them, and the processes employed. Open to those who have had one year of high-school botany, or Botany 1 or 2. Eight credits (two evenings a week); both semesters. Fee, \$10.00 a semester. TILDEN.
4. SCHOOL GARDENS. A garden study of the common, useful, and ornamental plants with especial reference to the development of school and experimental gardens, as well as to methods of propagation and cultivation. Stress is laid upon the correlation of the garden work with the life of the school, and a general survey is made of the development of the school garden idea. Prerequisites the same as for Course 3. Four credits (two evenings a week); second semester. Fee, \$10.00 a semester. CLEMENTS.

CHEMISTRY

1. ELEMENTARY CHEMISTRY. A study of the common chemical elements and their compounds, with an introduction to the modern theories of chemistry. Special attention to be given to the practical applications of chemistry. Lectures, textbook, and laboratory work. Four credits (two evenings a week); both semesters. Fee, \$10.00 a semester. TEMPLE.

EDUCATION

- 1 (3a*). BRIEF HISTORY OF EDUCATION. The origin and development of schools, more particularly in the modern period, as a preparation of the understanding of the educational systems, theories, and practices of the present. Ranks as a junior and senior course in the University. Open to teachers and prospective teachers who have met the college entrance requirements. Four credits (two evenings a week); each semester. Fee, \$10.00 a semester. NORMAN.
- 2 (121a). SCHOOL SUPERVISION. A course in fundamental principles of school organization, administration, and supervision. It is designed for teachers, principals, superintendents, members of boards of education, parents, or others who are interested in discussions relating to

* The number in parentheses is that of the corresponding course in the regular University bulletins.

methods of administration and supervision of public school education. Open for credit to high-school graduates who are also graduates of normal schools, or who have had adequate experience in teaching. Other persons, not desiring credit, may register. Each prospective student must get permission from the instructor before registering for the course. Two credits (one evening a week); second semester. Fee, \$5.00 a semester. RANKIN.

- 3 (142). INDUSTRIAL EDUCATION. Open for credit to high-school graduates who are graduates of normal schools, or who have had adequate teaching experience, or who have had adequate experience as industrial workers. Other persons, not desiring credit, may register. Each person who wishes to take the course should see the instructor before registering. The course treats of the necessity for vocational training in the public schools. It aims to show the bearing of the facts of universal education and industrial evolution on the methods and material of a system of public schools. Four credits (one evening a week); both semesters; Wednesday. Fee, \$5.00 a semester. RANKIN.
- 4 (141). SCHOOL SANITATION. This course will be conducted by text, by lectures, and by investigation into the problems of school lighting, heating, and ventilation, and other questions of school architecture and management connected with the physical well-being of the pupils. Open for credit to teachers, prospective teachers, and school board members. Those desiring University credit must be eligible for enrollment in the University. Others may take the course without credit. Each student must see the instructor before enrolling. Two credits (one evening a week); first semester. Fee, \$5.00 a semester. RANKIN.
5. EDUCATIONAL STANDARDS IN A DEMOCRACY. The meaning of democracy, its origin and growth as a political and social ideal. The relation of the school to this ideal in America. School standards inherent in democracy as a political and social conception. The application of these standards to present conditions and practices. Two credits (one evening a week); first semester. Ranks as a junior and senior course in the University. Open to teachers and prospective teachers who have met the college entrance requirements. Fee, \$5.00 a semester. SWIFT.

ENGLISH

- 1 (55). SHAKESPEARE: THE EARLIER PLAYS. A course of lectures on Shakespeare with reading of a considerable number of plays. Two credits (one evening a week); first semester. Fee, \$5.00 a semester. CRAIG.
- 2 (68). THE ENGLISH NOVEL. A course of lectures on the English novels and novelists and on the principles and methods of prose fiction with

the reading of eight representative novels. Two credits (one evening a week); second semester. Fee, \$5.00 a semester. CRAIG.

3. THE SHORT STORY IN ENGLISH. A study of the principles and practice of the short story as evolved in modern literature. The work is aimed not only to teach technic of the form, but to train the student in the actual production of this sort of fiction. Two credits (one evening a week); first semester. Fee, \$5.00 a semester. NORTHROP.
- 4 (36). SHAKESPEARE. A study of the later plays of Shakespeare showing the culmination of his development as a poet and dramatist. Two credits (one evening a week); second semester. Fee, \$5.00 a semester. NORTHROP.
5. THE POETRY OF ROBERT BROWNING. A study of the inspirational value of Browning's message. Lectures and readings. The topics will include the dramas, lyrics, and *The Ring and the Book*. One evening a week; first semester. Fee, \$5.00 a semester. POWELL.

GEOLOGY AND GEOGRAPHY

- 1 (1). GENERAL GEOLOGY. Materials of the earth and geologic processes; physiographic, structural, and dynamic geology, with a brief introduction to historical geology. Lectures, laboratory work, field excursions, map study, and conferences. Two credits (one evening a week); first semester. Fee, \$5.00 a semester. LEHNERTS.
- 2 (4). GEOGRAPHY AND GEOLOGY OF MINNESOTA. The geological study of Minnesota; its rocks and soils; minerals and mines; building stones, clay beds, and glacial deposits; rivers and lakes; scenic features; waterways and water powers; artesian well basins; prairies, forests, and agricultural lands; problems of state-wide interest, such as immigration, agriculture, drainage, reforestation, construction of state highways, utilization of natural resources, and development of old and new industries. Two credits (one evening a week); first semester. Fee, \$5.00 a semester. LEHNERTS.
- 3 (36). GEOGRAPHY OF NORTH AMERICA. A study of the United States, Canada, Mexico, and Central America; their surface, soil, climate, natural resources, industries, and peoples. Special study and scientific interpretation will be made of the most scenic regions of our continent, such as Yellowstone Park, Glacier Park, the Grand Canyon of the Colorado, the Yosemite Park, Lake Chelan and the Cascade Mountains, the Canadian Rockies, the Panama Canal, etc., etc. This course is planned (1) for those who can not travel but who wish to acquaint themselves with the peoples, resources, and conditions of our continent; (2) for those who have traveled, but desire further explanation of the conditions and phenomena; and (3) for those who intend to travel and wish to make adequate preparation. Two credits (one evening a week); second semester. Fee, \$5.00 a semester. LEHNERTS.

- 4 (31-32). PHYSICAL AND HUMAN GEOGRAPHY. First semester: Physical features of the earth and agencies effecting changes in them; effects of various land forms on activities of man; elements of climatology and oceanography; topographic map interpretation; field excursions. Second semester: economic and political development in relation to nature; geographic and economic interpretation of history; economic progress as a phase of adaptation to environment. Textbook, lectures, and reports. Constitutes a unit course for which no credit is given until both semesters are completed. May be counted toward a major or minor in the Department of Geology or in the Department of Economics. Four credits (one evening a week); both semesters. Fee, \$5.00 a semester. LEHNERTS.

GERMAN

- 1 (1-2). BEGINNING GERMAN. Pronunciation, grammar, conversation, and composition; selected reading in easy prose and verse. Eight credits (two evenings a week); both semesters. Open to all who have had no German. Both semesters must be completed before credit is given for the first semester. Fee, \$10.00 a semester. DAVIES.
- 2 (3-4). INTERMEDIATE GERMAN. First semester; selections from modern narrative and descriptive prose; selected lyrics and ballads. Second semester; a drama of Lessing, Goethe, or Schiller. Open to those who have completed Course 1 or its equivalent. Both semesters must be completed before credit is given for the first semester. Students who obtain credit for this course can not receive credit also for Course 3. Eight credits (two evenings a week); both semesters. Fee, \$10.00 a semester. GEISSENDOERFER.
- 3 (5-6). PROSE AND POETRY. Stern's *Aus deutschen Meisterwerken*; Goethe's *Gedichte*; Heine's *Buch der Lieder*. Geography, history, and legend. Review of German grammar throughout the year. Open to all with two years of German. Not open to those who have obtained credit in Course 2. Both semesters must be completed before credit is given for the first semester. Eight credits (two evenings a week); both semesters. Fee, \$10.00 a semester. BURKHARD.
- 4 (27-28). ELEMENTARY CONVERSATION AND COMPOSITION. Conversation on topics of every-day life, oral narrative; translation into German, short descriptive or narrative essays, and letter writing. Intended for those who have had at least one year of German. Four credits (one evening a week); both semesters. Fee, \$5.00 a semester. BURKHARD and MYERS.
- 5 (7-8). THE DRAMA. First semester: Classic drama; plays of Lessing, Goethe, or Schiller; study of dramatic structure; history of the German drama in the eighteenth century. Second semester: Modern drama; plays of Grillparzer, Kleist, Hauptmann or Sudermann;

study of the present-day drama in Germany; assigned readings and reports. Open to those who have taken Courses 1 and 2, or Course 3. Both semesters must be completed before credit is given for first semester. Eight credits (two evenings a week); both semesters. Fee, \$10.00 a semester. GEISSENDOERFER.

- 6 (29-30). INTERMEDIATE GERMAN CONVERSATION. This course follows the Elementary Course and is a conversational course only. Practice in speaking German, following the laboratory method. Some speaking knowledge of German is desirable. Should be preceded by Course 4. Two credits (one evening a week); both semesters. Fee, \$5.00 a semester. KOENIG.

GREEK IN ENGLISH

1. GREEK MYTHOLOGY. No knowledge of Greek is required for this course. A course of lectures and readings dealing with the legends and myths which appear in the literature and art of ancient Greece. The quaint and beautiful stories of Greek gods and heroes found in Homer and in the tragic and lyric poets will be presented and interpreted, and the whole course will be richly illustrated with the stereopticon. The origin and evolution of the myth, its relations to Greek literature, philosophy and religion, and its influence upon later literature, will also be touched upon. Two credits (one evening a week); first semester. Fee, \$5.00 a semester. SAVAGE.
2. THE GREEK DRAMA. No knowledge of Greek is required for this course. It consists in the reading and interpretation of representative Greek plays, together with lectures on the origin, growth, character and influence of the Greek drama. Lectures richly illustrated with the stereopticon, portraying Greek life and Greek dramatic art in its various aspects, will also be given. Two credits (one evening a week); second semester. Fee, \$5.00 a semester. SAVAGE.

HISTORY

- 1 (1-2). MEDIEVAL AND MODERN HISTORY. The growth of France, Germany, and Italy from 800 A. D. to the French Revolution with reference also to social and economic conditions, and to the Medieval church. Open to all. Eight credits (two evenings a week); both semesters. Fee, \$10.00 a semester. DAVIS.
2. AMERICAN POLITICAL HISTORY, 1492-1912. Brief survey of the colonial and the most recent periods, with fuller treatment for the years 1789-1865. Special attention given to political parties, territorial expansion, slavery, and the Civil War. Eight credits (two evenings a week); both semesters. Fee, \$10.00 a semester. DAVIS.

LATIN

- 1 (9). ROMAN LIFE AND ARCHITECTURE. Chief topics: Roman national characteristics; Rome and the Campagna; the orders of architecture; the Forum; its life and activities; the forums and palaces of the Caesars; the Roman house and furniture; the theaters and the presentation of plays; amphitheaters and gladiatorial combats; the circuses and chariot races; Pompeian baths and Roman *thermae*; triumphal and sepulchral monuments. Two credits (one evening a week); first semester. Fee, \$5.00 a semester. GRANRUD.
- 2 (10). ROMAN AND ITALIAN LIFE AND ART. Leading topics: the first principles of art; Roman historical reliefs and portrait sculpture from Sulla to Constantine; pictorial technique and wall decoration; mythological paintings; landscape, *genre*, and still life; Italian scenery; typical Italian cathedrals; *Roma immortalis*, past and present; select masterpieces of Raphael and Michael Angelo. Two credits (one evening a week); second semester. Fee, \$5.00 a semester. GRANRUD.

Each session of Courses 1 and 2 will consist of an introductory lecture, reports, and discussions. The lectures are illustrated with numerous black and colored lantern slides, and aim to portray the artistic side of the Romans and Italians, to describe the intimate and vital connection of their art and life, and to indicate the supreme importance of their artistic achievements.

MATHEMATICS

- 1 (1). HIGHER ALGEBRA. PART I. The fundamental rules, factoring, highest common divisor, lowest common multiple, fractions, involution, evolution, surds, imaginaries, simple equations with one, two, and several unknown quantities, inequalities, ratio and proportion, arithmetical and geometrical progressions, quadratic equations, and numerous problems requiring both simple and quadratic equations. The examples and problems are more difficult than those under the same subjects in Elementary Algebra and demonstrations are an important part of the work. Four credits (two evenings a week); first semester. Fee, \$10.00 a semester. ADKINS.
- 2 (3). HIGHER ALGEBRA, PART II. First two evenings devoted to a review of factoring, H.C.D., L.C.M., fractions, surds, and theory of exponents. The following topics will be treated in detail: Quadratic equations, equations in quadratic form, simultaneous quadratic equations, progressions, the mathematical induction proof with the binomial formula, permutation, and combinations, determinants of second and third order in connection with simultaneous linear equations, the theory of equations with methods of obtaining real roots of numerical equations. Graphical representation and graphical solution of

equations will be given special attention all through the course. Open to those who have completed Course 1, or its equivalent. Four credits (two evenings a week); second semester. Fee, \$10.00 a semester. ADKINS.

- 3 (4). LOGARITHMS AND TRIGONOMETRY. Text, tables, and numerous problems. Open to those who have completed Course 2 (Higher Algebra, Part II). Four credits (two evenings a week); first semester. Fee, \$10.00 a semester. SLOBIN.
- 4 (7). ANALYTICAL GEOMETRY. Rectilinear and polar coördinates, producing equations of loci whose law of development is known, constructing and discussing such equations, transformation of coördinates, properties of the straight line, the conic sections and higher plane curves by means of their equations. Open to those who have completed Course 2 or 4 (Advanced Algebra and Plane Trigonometry, or Logarithms and Trigonometry). Four credits (two evenings a week); second semester. Fee, \$10.00 a semester. SLOBIN.

PHILOSOPHY AND PSYCHOLOGY

- 1 (1). ELEMENTS OF PSYCHOLOGY. The aims and methods of psychology, the facts and laws of mental life, and the functions of the various mental processes in the adjustment of man and his environment. Open to sophomores, juniors, seniors, and teachers. This course is required for the Teachers' Certificate. Four credits (two evenings a week); each semester. Fee, 10.00 a semester. WOODROW, EDWARDS.
- 2 (9a). LOGIC. The nature of knowledge, the laws of reasoning, and the principles and methods of scientific proof. The aim of this course is to produce accuracy of thought as well as to familiarize the student with the logical grounds of modern science. Textbook, lectures, and reports. Open to those who have had some college work, and to teachers. Four credits (two evenings a week); each semester. Fee, \$10.00 a semester.
3. PRESENT DAY PHILOSOPHY. A popular survey of the chief movements of contemporary thought in Philosophy and Sociology, including a discussion of modern Materialism, Idealism, Positivism, Utilitarianism, Pragmatism and Socialism. The course is meant for those who want to be awake to the main tendencies in the philosophic thought of the present and yet have not time to make an extensive study. Two credits (one evening a week); first semester. Fee, \$5.00 a semester.
4. HUMAN NATURE. A course in modern philosophy and psychology, as applied to the chief problems of practical life. The course will be untechnical, and will include a number of simple experiments designed to illustrate the subjects treated, and to serve as basis for the discussion. Among the subjects dealt with, the following will be included: the analysis of character into its elements; the significance of

laziness, fatigue and sleep; efficiency, and the chief factors in attaining it; the meaning of education; its various stages, and final goal; memory, and the laws of forgetfulness; thought transference, automatic writings, and kindred subjects. Two credits (one evening a week); second semester. Fee, \$5.00 a semester.

POLITICAL SCIENCE

- 1 (5). MUNICIPAL ORGANIZATION. This is a course in the study of the modern city. The chief topics are: methods of framing and amending city charters, the initiative, referendum, recall, new methods of making nominations, preferential voting, municipal activities, finance and accounting, municipal inefficiency and corruption, and the proposed reforms. Two credits (one evening a week); second semester. Fee, \$5.00 a semester.

RHETORIC AND PUBLIC SPEAKING

- 1 (1). ENGLISH RHETORIC I. Practical training in writing, exposition, narration, and description. Analysis of prose selections and of compositions written by the class. Two credits (one evening a week); first semester. Fee, \$5.00 a semester. PATTISON.
- 2 (2). ENGLISH RHETORIC II. A combination of the preceding course, open to those who have had one half-year course in freshman Rhetoric, or its equivalent. Two credits (one evening a week); second semester. Fee, \$5.00 a semester. PATTISON.
- 3 (41-42). A GENERAL COURSE IN PUBLIC SPEAKING. The fundamentals of effective speaking; study and practice of the principles of breathing, voice-production, enunciation, and action; delivery of extracts from the works of well-known writers and speakers; the principles underlying the making of the speech applied in both oral and written compositions. Open to ministers, lawyers, teachers, and others who are able to carry the work successfully. Four credits (one evening a week); both semesters. Fee, \$5.00 a semester. RARIG, GISLASON.
- 4 (11-12). EXPOSITION, DESCRIPTION, AND NARRATION. In the first semester, the analysis of specimens of exposition; short themes and fortnightly essays, with emphasis on careful planning and amplification. In the second semester, the same general plan applied to description and narration. Open to those who have completed the equivalent of Course 1-2 in college Composition and Rhetoric. Eight credits (two evenings a week); both semesters. Fee, \$10.00 a semester.

ROMANCE LANGUAGES

- 1 (1). BEGINNING FRENCH. Grammar, pronunciation, reading and practice in speaking. Open to all. Both semesters must be completed

before credit is given for the first semester. Four credits (one evening a week) ; both semesters. Fee, \$5.00 a semester.

- 2 (3). INTERMEDIATE FRENCH GRAMMAR AND COMPOSITION. French grammar review ; readings from modern authors. Open to all who would enter the University with two years of French. Both semesters must be completed before credit is given for the first semester. Four credits (one evening a week) ; both semesters. Fee, \$5.00 a semester.
- 3 (7-8). ELEMENTARY FRENCH CONVERSATION AND COMPOSITION. Four credits (one evening a week) ; both semesters. Prerequisite French I. Fee, \$5.00 a semester.
- 4 (109-110) LECTURES IN FRENCH. *Le mouvement général des lettres de 1870 jusqu'à nos jours*. Supplementary reading, quizzes, and final examination. This course is particularly recommended to teachers of French and to members of the Alliance Française and kindred societies. Two credits (one evening a week) ; first semester. Fee, \$5.00 a semester. MULLER.
- 5 (31). BEGINNING SPANISH. Grammar, pronunciation, reading and practice in speaking. Four credits (one evening a week) ; both semesters. Fee, \$5.00 a semester.

SCANDINAVIAN

- 1 (1-2). BEGINNING NORWEGIAN. Grammar, select reading in easy prose and poetry. Eight credits (two evenings a week) ; both semesters. Fee, \$10.00 a semester. BOTHNE.
- 2 (101-102). MODERN NORWEGIAN LITERATURE. History of Norwegian literature from 1814 to the present day. Open to advanced students who have completed Courses 1-2 and 3-4 (Elementary and Advanced Norwegian) and others having equivalent preparation. Both semesters must be completed before credit is given for the first semester. Eight credits (two evenings a week) ; both semesters. Fee, \$10.00 a semester. BOTHNE.
- 3 (5). BEGINNING SWEDISH. Grammar, conversation, composition, modern texts. Open to all who have had no Swedish. Both semesters must be completed before credit is given for the first semester. Second semester not given in 1915-1916. Four credits (two evenings a week) ; first semester. Fee, \$10.00 a semester. STOMBERG.
- 4 (107-108). SWEDISH LITERATURE. History of Swedish literature from 1719 to the present time. History of the literature and study of modern authors, including Selma Lagerlöf, Geijerstam, Strindberg. Open to advanced students who have completed Courses 5-6 and 7-8 (Elementary and Advanced Swedish) and others able to carry the work successfully. Both semesters must be completed before credit is given for the first semester. Eight credits (two evenings a week) ; both semesters. Fee, \$10.00 a semester. STOMBERG.

SOCIAL ECONOMICS

Emphasizing human cost, human economy, human efficiency, and human justice, the following courses in Social Economy make an appeal to both the social worker and the business student. This is true particularly of the business student who desires to be a leader. A far-sighted view of business has always shown that a proper regard for the human factor may increase profits. Furthermore, society is already insisting that the heads of large business enterprises be socialized business chiefs.

Social workers, including teachers, charity workers, public officers, ministers, workers for civic improvement or for peaceable adjustment between labor and capital, will find these courses to be of vocational value.

Certificate in Civic and Social Service

The University now offers a Certificate in Civic and Social Service to those students who complete the following course of study. This certificate will be awarded upon the satisfactory completion of forty-eight credit hours of work as indicated below. The student may complete this course in three years of eight hours a week, but in many cases four years of six credit hours a week will be advisable.

FIRST GROUP

(Twenty-four credits, all required)

In Economics—

Man and His Living (2)*

Industrial History:

English (2)

American (2)

Labor and Life (2)

Labor and the Public (2)

Economic Conditions in American Cities (2)

In Political Science—

American Government (2)

Municipal Administration (2)

In Sociology—

Descriptive Sociology (2)

Elements of Sociology (2)

Social Pathology (2)

In Psychology—

Elements of Psychology (2)

* Figures in parentheses indicate number of credits which correspond to the number of class hours a week.

SECOND GROUP

(Subjects aggregating twenty-four credits to be selected)

In Economics—

- Labor and Immigration (2)
- Economic Functions of the State (2)
- Elements of Statistics (2)
- Economic Conditions in American Cities (2)

In Political Science—

- Modern Political Thought (2)
- Police Power (2)

In Sociology—

- The American People (2)
- Modern Social Institutions (2)

In Psychology—

- Mental Retardation (2)

In Education—

- Philosophy of Education (2)

In English—

- The Recent Movement in the Drama (2)

In Rhetoric—

- Rhetoric (2)
- Public Speaking (2)

The student may take subjects not here mentioned to the extent of six credits.

1. MAN AND HIS LIVING. A general course in the activities, relations, and phenomena that result from human effort to make a living and to live. How to weigh and study the economic facts of life; the aim and goal of economic progress; democracy of well-being; wages, rent, interest, profits, money, taxes, trusts, insurance, and other related topics. Designed to appeal to business and professional people, social workers, and others who desire to maintain a broad view of life and to be ripe for active citizenship; also to the teacher who aims to enliven and enforce his teaching by bringing it into relation with life outside the school. Two credits (one evening a week); one semester. Fee, \$5.00 a semester. PHELAN.
2. ECONOMIC DEMOCRACY. The beginning of American democracy; the modern teachings found in the Utopian reformers; the beginning of modern socialism; the progress of socialism; its relation to anarchism, syndicalism, and trade unionism. The problem of monopoly and its solutions through (1) enforced competition, (2) socialism, or (3) public regulation. Of vital importance to every citizen and to students of human affairs. This course clears up many misconceptions, examines socialism carefully, and emphasizes economic reform through public regulation and education. Two credits (one evening a week); one semester. Fee, \$5.00 a semester. PHELAN.

- 3 (160). LABOR AND LIFE (LABOR PROBLEMS). The rise of the modern labor problem; woman labor, sweating, minimum wage; child labor, industrial education, vocational guidance, mothers' pensions; unemployment, industrial accidents, industrial disease, poverty. Teachers, employers, employees, social workers, and active citizens should find much of interest and profit in this course, and in the courses numbered 4 and 5. Two credits (one evening a week); one semester. Fee, \$5.00 a semester. PHELAN.
- 4 (161). LABOR AND THE PUBLIC (LABOR PROBLEMS). Strikes and their prevention, boycotts, injunctions; labor doctrines and theories; types of labor unions, of employers' associations; profit-sharing and co-operation; scientific management; housing and old-age pensions. Two credits (one evening a week); one semester. Fee, \$5.00 a semester. PHELAN.
5. IMMIGRATION AND LABOR. Who is an immigrant; the causes of immigration; the immigrant and the development of America; the effects of immigration on the native population; the effects on labor; the commercial, social, and civic effects on Europe; what shall be done about immigration. Two credits (one evening a week); one semester. Fee, \$5.00 a semester. PHELAN.
6. THE CITY. A general course on the city in relation to human progress and economic justice. The rise of cities; their peculiar problems; city government and human well-being; revenues and expenditures; the city as a laboratory of democracy. Two hours (one evening a week). Fee, \$5.00 a semester. PHELAN.

SOCIOLOGY AND ANTHROPOLOGY

- 1 (113). THE AMERICAN PEOPLE I. Dominant characteristics of the diverse foreign peoples now in the United States; their modification in America; the importance of these peoples to the American nation. Lectures, readings and essay. Two credits (one evening a week); first semester. Fee, \$5.00 a semester. JENKS.
- 2 (114). THE AMERICAN PEOPLE II. A continuation of Course 1. Essential and unique historical Americanisms, and their value and virility for the future; facts and forces of amalgamation and assimilation in America; America's ethnic problems. Lectures, readings, and essay. Two credits (one evening a week); second semester. Fee, \$5.00 a semester. JENKS.

ADDITIONAL COURSES

Many advanced courses not listed in this bulletin will be given upon the request of any responsible individual or group willing to organize a sufficiently large class to insure the success of the undertaking.

DEPARTMENT OF BUSINESS INSTRUCTION

The following courses are arranged with a view to meet the needs of those who desire special training for the higher business positions. Business is rapidly becoming a profession, or rather the business field is opening up several professions, among which are Accountancy, Banking and Finance, Advertising, and Salesmanship. The University through its General Extension Division is attempting to afford a preparation for these professions, as it has long done for the professions of Law, Medicine, Engineering, and the like.

The time appears to be approaching when it will be just as necessary for one to secure special training for business positions as it is now to secure training for the learned professions. It is recognized, too, that the rewards for those trained for the business professions are fully as great both financially and in a social way as they are for those trained for the so-called learned professions. Moreover, experience is proving that the very people whom the General Extension Division are reaching can, while being actively employed during the day, best comprehend and appreciate the kind of instruction the evening classes afford.

The subjects of instruction are divided into three groups or courses of study, viz.: those aiding in the preparation for accountancy, those aiding in the preparation for banking and those having for their object a general business training. In each of these courses certain fundamental subjects, such as Business Law, Economics, and Business English, are required. Each course can be completed by taking three subjects per week for two years, each class meeting one night per week. Each course may be completed in three years by taking but two subjects per week. Upon the completion of one of these courses a University Certificate to that effect will be granted.

TWO YEAR-COURSE IN ACCOUNTANCY

This course is designed to meet the needs of two classes of students, namely, those who wish to prepare to take the state C.P.A. examination with a view of becoming public accountants, and those who aim to fit themselves for responsible positions with private business firms.

For the student who wishes to pursue either object we recommend that he plan to take the regular course herein outlined and thus secure a broad foundation for his work.

Upon the satisfactory completion of this course, the University Certificate in Accounting will be granted.

The course requires a total of twenty-four credits, each one-semester subject counting for two credits. Each subject requires one class recitation per week for one semester of sixteen weeks. There are two semesters per year, hence the course may be completed in two years by taking three subjects per week. Or, if the student prefers, he may take but two subjects per week, thus requiring three years to complete the course.

The following subjects are required for the course:

- | | |
|--|---|
| 1. Principles of Accounting "A" | 7. Accounting Problems or Cost Accounting |
| 2. Principles of Accounting "B" | 8. Business Law "A" |
| 3. Accounting Practice and Procedure "A" | 9. Business Law "B" |
| 4. Accounting Practice and Procedure "B" | 10. Business Law "C" |
| 5. Auditing "A" | 11. Economics "A" |
| 6. Auditing "B" | 12. Business English. |

ACCOUNTANCY PRIZE

In order to foster the study of accountancy the Commerce Club (composed of students of the Department of Business Instruction) offers a prize of \$15 to the best student in Principles of Accounting "A" and "B" in the year 1915-16.

FEEES

The fee for these courses is \$30 per year, payable \$15 each semester, when registering for three subjects; or \$24 per year, payable \$12 per semester, when registering for two subjects. The fee for a single subject is \$7.50 per semester. This does not include materials, these being furnished students at a nominal charge.

Special arrangements are made with organizations, clubs and individual business concerns, whereby instruction may be given to groups of students within the organization at a sum which will somewhat reduce the individual rate per member.

THREE-YEAR COURSE IN BANKING AND FINANCE

This course is designed to meet the needs of two kinds of students: (1) those who are preparing for, or who are now engaged in, such financial callings as banking, corporation management, stock and bond brokerage, credit work, or financial journalism; and (2) business men who wish to utilize in the upbuilding of their particular business all of the modern scientific knowledge of a practical financial nature.

University Certificate in Finance

Those students who wish to secure a thoro knowledge of finance, and an adequate knowledge of general business for a financial occupation, are urged to arrange their registration so as to obtain the Certificate in Finance as offered by the University.

This certificate will be granted to those who complete a total of twenty-four credits distributed as follows:

- | | |
|---------------------------------|--------------------------------|
| Principles of Economics (2) | Principles of Accounting B (2) |
| Banking Practice (2) | Business Law A (2) |
| Investments and Speculation (2) | Business Law B (2) |
| Corporation Finance (2) | Business Law C (2) |
| Business English (2) | Elective subjects (4) |
| Principles of Accounting A (2) | |

The American Institute of Banking

The American Institute of Banking recognizes the evening courses of the General Extension Division at the University of Minnesota as fulfilling all the requirements of its educational department. Students who complete these courses in Finance are accredited by the Institute without further examination or formality.

By this arrangement, the members of the Minneapolis, St. Paul, and Duluth chapters of the American Institute of Banking may obtain the A. I. B. Certificate upon completion of Economics (2 credits), Finance (2 credits), and Business Law (4 credits).

The advanced courses in Finance coincide with the requirements of those who wish to receive the title of Associate from the Institute for postgraduate study.

GENERAL BUSINESS COURSE

For the benefit of those students who do not care to specialize in either accounting or in finance, yet wish to secure recognition as having completed a definite group of subjects, the following course is arranged. It is likely that certain of the subjects herein outlined will be more fully developed, and later, together with the fundamental subjects, form courses in themselves.

It is planned that each of these courses will furnish a preparation for a definite calling, such as advertising, salesmanship, and sales management, railroad traffic, and office management.

The University Certificate in General Business

This certificate will be granted to those who successfully complete a total of twenty-four credits distributed as follows:

Business English (2)
Business Law A (2)
Business Law B (2)
Economics A (2)
Accounting A (2)
Accounting B (2)

Elective subjects (12)

(These electives should be selected with a view to specializing in some particular field, as in Advertising and Selling, in Railroad Traffic, and the like.)

DESCRIPTION OF SUBJECTS

ACCOUNTING

- I. INTRODUCTION TO ACCOUNTING. The purposes of accounting, the use of books of original entry, posting to the ledger, the trial balance, closing the ledger, preparation of simple statements. Two credits (one evening per week). PRESTON and HARPER.

This course is arranged for those students who do not understand bookkeeping principles sufficiently well profitably to pursue Course 2. (Hereafter an examination will be required for entrance to Course 2.) The object of the course is not to teach bookkeeping and office routine. Those desiring such training are advised to enter the classes in the Public Schools, the Y. M. C. A., or the Business Colleges. The object is to give such preparation for those who desire to make a further study of the science of accounts, but who, through inexperience or lack of study, are unable to work beside those who have had that preparation. A study of the principles of the subject will be made from the start, only sufficient bookkeeping practice being given to illustrate the principles involved.

2. PRINCIPLES OF ACCOUNTING "A". Single and double entry, statement of earnings by comparison of capital at the beginning and end of a period, statement of assets, liabilities, and capital, the merchandise account and its analysis, account nomenclature, accruals, deferred charges, classification of loss and gain accounts and of balance sheet accounts. The use of auxiliary ledgers and controlling accounts, exercises in closing the books and in arranging balance sheets and income statements, departmentization of accounts, imprest cash system, contingent liabilities. Designed for those who already have a knowledge of bookkeeping principles. Those not having such knowledge are expected to first take Course 1. Two credits (one evening a week); first semester. PRESTON, ROTZEL.

A fundamental general course treated from the standpoint, first, of the purposes which the science and practice of accounting seek to accomplish; second, of the methods and means by which this object is gained. Under the first heading, a general inquiry is made into the information necessary for an intelligent conception of a business to various parties in interest. Under the second heading, principles are developed which underlie the most efficient methods used to secure and set forth such information and place it upon record.

The method of instruction affords the student the greatest amount of practical work. A model proposition is demonstrated by the instructor and the student is asked to work out a similar proposition according to the principles brought out in the demonstration. The propositions as well as their solutions are taken from actual practice.

3. PRINCIPLES OF ACCOUNTING "B". Further exercises in the preparation of statements, the manufacturing, trading, and profit and loss accounts, good will, depreciation, the accountant's working sheet, accounts peculiar to a corporation, surplus, sinking funds and reserves, condensed balance sheet and income statement. For those who have completed Course 2 or its equivalent. Two credits (one evening a week); second semester. PRESTON, ROTZEL.
4. ACCOUNTING PRACTICE AND PROCEDURE "A". The subject matter is presented chiefly by means of a more or less exhaustive study of a

representative business. The work consists of the following: (a) the study of a complete illustrative accounting installation for a manufacturing and selling enterprise; (b) a study of the distinctive group of accounting problems which are likely to arise in a business organization through a series of years and the scientific solution of those problems made possible by the use of an installation such as the one studied; (c) a study of the accounting problems peculiar to representative business other than manufacturing and selling. The manner of presenting the subject is essentially practical, the students being required to work out for themselves problems similar to the ones studied. Two credits (one evening a week); first semester. ROTZEL.

An advanced course for the accounting student following the study of Accounting Principles. The object of the subject is twofold: first, to familiarize the student with the peculiar accounting problems of business, and, second, to afford the student the means to secure that necessary insight and skill which practicing accountants must possess in order to meet the demands made upon them.

5. ACCOUNTING PRACTICE AND PROCEDURE "B". A continuation of Course 4. Two credits (one evening a week); second semester. ROTZEL.
6. COST ACCOUNTING. The elements of cost, i.e., prime cost and indirect expense or burden, kinds of cost accounting, continuous process and production order costs. The materials ledger. Methods of accounting for labor. Methods of distributing indirect or "overhead" expense. The machine rate method, and when applicable. Methods of compensating labor. Pre-determined standard costs, and their relation to "scientific management." The cost ledger and its relation to the general ledger. Two credits (one evening a week); first semester. PRESTON.

Modern industry demands that each plant to be equipped with adequate accounting facilities for ascertaining the cost of operation. These costs are necessary to show, first, the profitableness of each branch of the industry so as to enable the management to push the profitable, and to drop the unprofitable, lines, or to place them upon a paying basis; second, the cost of each article as a basis of price making; third, so far as possible the cost of each operation, so as to enable the management to plan economies in the operation of the plant.

7. AUDITING (A). This course is essentially practical and is intended only for those whose previous training in the principles of accounting has been sufficient to enable them to be benefited by their advanced work. The chief aim will be to give students the training necessary to enable them to conduct audits and investigations either as private auditors or public accountants; to set up accounts for various purposes as a result of such audits or investigations and to prepare suitable reports thereon. Two credits (one evening a week); first semester. ROTZEL.

8. AUDITING (B). A continuation of Course 7. Two credits (one evening a week; second semester. ROTZEL.
9. APPLIED ACCOUNTING (A). A similar course designed for those who have two years of work in Accounting. The purpose of the course is to apply the principles and the practice of accounts as studied in the previous years to a business most primitive to the student. Each student will work up in report form the details of an accounting installation which will be of such a character that it will meet in a scientific way all the contingencies which would be likely to arise in a series of years. Two credits (one evening a week); first semester.
10. APPLIED ACCOUNTING (B). Continuation of Course 9. Two credits (one evening a week); second semester. ROTZEL.
11. ACCOUNTING SYSTEMS. The type of business to be dealt with will consist of: financial—the commercial bank, savings bank, and insurance company; mercantile—the department store and lumberyard; manufacturing—the flour mill and brewery; municipal utilities—the gas and electric railway companies; public service—the steam railroad and telegraph companies; governmental—accounting systems of municipalities; legal—the accounts and books of executors and receivers. The subject matter will be illustrated by means of the uniform systems of accounts prescribed by governmental and other commissions, by the published report of corporations and selected C. P. A. problems. Four credits (one evening a week); both semesters. MITCHELL.

The aim of this course is to apply the principles of account classification to the accounts of a representative of each type of business, showing how its expense and revenue accounts should be classified, its special accounting problems, and the system of accounts and books which will best accomplish the purpose.

BANKING AND FINANCE

21. BANKING PRACTICE. The documents created by transactions in goods; the function of a bank in aiding industry; the steps in organization of national or state banks; corporate powers, rights, and liabilities of stockholders and directors; bank administration and the various officers and departments; deposits, depositors, and receiving tellers; bank reserves and circulating notes; the clearing-house, handling country checks, and transit departments; collections; domestic exchange; foreign exchange; discounts and collateral loans; credit department; how profits are made on government deposits, by note issue, in buying and selling exchange, by analysis of depositor's accounts; accounting methods and general balances; examinations, supervision, and reports; and bank policy from the analysis of local bank reports. Two credits (one evening a week); second semester. EBERSOLE.

This course aims to explain the various functions of an up-to-

date bank and to teach the methods by which its work is accomplished. A careful survey will be made of the economic basis, legal status, accounting methods, and financial problems of banking as carried on by large commercial institutions having a full complement of banking operations including city, country, and foreign business. The method of presentation comprises reading references, lectures, review questions, and use of the blackboard for all computations.

22. **MONEY AND CREDIT.** The origin, evolution, and functions of money; the gold standard, forms of money current in the United States; government paper, bank notes, and deposit currency described and analyzed; credit and its effects; the causes of general price changes; various types of standards and currency systems including bimetallism and the gold exchange standard; discount rates, the problem of securing an elastic currency, and the distribution of the world's gold between the nations; the problem of securing an ideal money. Text-book and money-market articles in current newspapers will furnish material for discussion. Two credits (one evening a week); first semester. EBERSOLE.

A thorough understanding of the character and functions of money and of the principles of credit is the cornerstone of modern business intelligence. This course in money and credit constitutes an interesting and scientific treatment of the forces that determine value and prices, of the processes of exchange, and of the many forms of media of payment represented by monetary and credit instruments.

- 23 (I45). **THE CORPORATION FINANCE.** The evolution of the private corporation and its relation to other business units; the organization of a corporation; charters and articles of association; directors and officers, manner of their selection, their functions and responsibilities; forms of corporation stocks and bonds and their respective legal and financial characteristics; the marketing of securities; capital and revenues; intangible values; books and accounts; dissolutions, consolidation, and reorganization; trust and holding companies; the taxing of corporations; corporation statistics; the preparation and analysis of corporation reports; the corporation before the law. Two credits (one evening a week); second semester. SINCLAIR.

Modern business in all of its major forms is directed through corporate organization. The course in corporation finance is designed to give the student such a knowledge of corporations and their administration as to make clear the general organization of industry and commerce. Texts will be extensively supplemented by informal lectures, class discussions, and topical essays.

- 24 (I42). **INVESTMENTS AND SPECULATION.** Stocks, bonds, endowments, annuities, and other forms of investment considered with regard to their security, income, and opportunity for rise or fall in value. The social process of saving and investment; the investment fund; various

classes of investments; the criteria of a good investment applied to government, corporation, and real estate loans; railroad, industrial, timber, and mining securities compared; the laws of investment values. Stock exchange operations; money market and other influences affecting prices; analysis of present fundamental conditions. The actual operations upon the stock and produce exchanges are used to illustrate the study of speculation, and the course of the markets and the bank rates is closely followed as a basis of deduction in the analysis of cause and effect. Textbook and interpretation of financial quotations and reports. Two credits (one evening a week); second semester. EBERSOLE.

BUSINESS LAW

General Explanation. In teaching business law, the Extension Division of the University has deviated widely from the general course and method of handling the subject. The policy of the department is to give the student *all* the principles which he can, as a layman, use and apply in actual business. Many courses have included only what the instructor thought of greatest importance without regard to usefulness. Usefulness is the sole test applied by the department.

The instruction is by means of lectures, quizzes, textbook, cases, and free and open class discussions and wide range and liberty of question by students.

The instructor, where the class will benefit thereby, will explain, discuss and pass upon contracts and contract forms, and methods of conducting business employed by the student or his employer in any case wherein the student may desire such consideration.

The illustrations and lectures emphasize the practical phases of the several subjects and are designed to assist the student to become thoroly businesslike and save him the expense arising from the most common and frequent legal errors.

Every business man needs, and is not fully equipped until he has covered the subjects of Business Law A, B, C, and D. The other business law subjects are planned more particularly for certain students only.

31. BUSINESS LAW "A"—CONTRACTS AND AGENCY

Contracts: Definition of a contract; offer and acceptance; special formality; consideration; capacity of parties; contractual powers of minors, of persons mentally deficient, and of married women; reality of consent, mistakes, misrepresentation, fraud, undue influence, legality of object; the operation of contracts; assignment of contracts; interpretation of contracts; methods of discharging contracts.

Agency: Methods of forming agencies; methods of terminating agency; the rights and obligations of principals, agents, and third parties. Text, lectures, and cases. Two credits (one evening a week); first semester. HOUCK, SINCLAIR, SMILEY.

This course is fundamental and must be completed before registration will be accepted for other courses in business law.

32. BUSINESS LAW "B"—SALES AND NEGOTIABLE INSTRUMENTS

Sales: Sales of personal property; definition of a sale and its distinction from a bailment; when the title passes to the buyer; what title passes; rights of the seller (a) to set the contract aside on the ground of fraud, (b) to enforce lien for the purchase money, (c) to obtain stoppage in transit; rights of the purchaser (a) to demand goods of a certain quality, (b) to demand warranty of the purchaser's title.

Negotiable Instruments: Nature and characteristics: (a) definitions and characteristics, (b) uniform negotiable instrument law; form: (a) what a negotiable instrument must and must not contain, (b) non-essentials, (c) effect of blanks and delivery; negotiation: (a) negotiation, indorsement, and delivery, (b) holder in due course and his rights; maker's and acceptor's contract: (a) maker's contract on a promissory note, (b) acceptor's contract on a bill of exchange, (c) presentment of a bill of exchange for acceptance; drawer's and indorser's contract: (a) drawer's contract on a bill of exchange, (b) indorser's contract on a bill or note, (c) presentment for payment, (d) notice of dishonor, (e) protest, (f) checks, (g) position of indorser after liability is fixed. Text, lectures, and cases. **HOUCK, SINCLAIR, AND SMILEY.**

Two credits (one evening a week); second semester. For those who have completed Course 31.

33. BUSINESS LAW "C"—PARTNERSHIPS AND CORPORATIONS

Partnerships: Formation of partnerships; articles of copartnership; methods of terminating partnerships; rights and obligations of partner (a) toward his copartners, (b) as an agent of the firm, (c) toward the firm's creditors, (d) for an accounting; special partners; limited partnerships.

Joint Stock Companies: How distinguished from ordinary partnerships; how like ordinary partnerships; statutory requirements.

Corporations: Formation of corporations of various classes; terminations of corporations; membership in corporations, methods of transferring interest, fraudulent issuance of stock by corporate officers; rights of stockholders (a) to dividends, (b) to inspect and control corporate affairs; liabilities of stockholders (a) on stock subscriptions, (b) to pay assessments, (c) for the corporate debts; the doctrine of *ultra vires*; rights and obligations of corporate directors; corporate mergers and consolidations; domestic and foreign corporations. Text, lectures, case assignments, and class discussions.

For those who have completed Course 31. Two credits (one evening a week); first semester. **HOUCK.**

34. BUSINESS LAW "D"—REAL PROPERTY, MORTGAGES, BANKRUPTCY

Real Property: Estates in land, estates held jointly or in common, equitable estates, relative rights of adjoining owners, trespass, easements, sales of real property, the contract to sell, conveyances, wills, mortgages, and liens; landlord and tenant, the lease, assignment and subletting, rent, and remedies for non-payment.

Insolvency and Bankruptcy.

Two credits (one evening a week); second semester. HOUCK.

35. BUSINESS LAW "E"—COMMON CARRIERS, AND LAW OF RAILWAY TRAFFIC AND RATES. Among the items considered are: Who are common carriers; duties, privileges, rights and liabilities in general; duty to furnish equipment; demurrage; when liability of carrier begins; when liability ends; bills of lading and contracts limiting liability; carrier's liability for goods in storage awaiting shipment or delivery; liability on goods lost, damaged or delayed, etc., etc. The difference between private and public utility businesses for purposes of regulation; the fundamental principles of regulation; legal considerations and elements making up lawful rates; what are reasonable rates, discriminatory rates; how each is determined and protected against competition, long and short haul, construction of tariffs; routing and misrouting; reconsignment and diversion of cars; time and manner of preventing claims; state and federal regulation and regulatory bodies; right to have rates quoted; penalty for erroneous quotation; how to present and handle claims before the State and Interstate Commerce Commission.

Particular attention is paid to state and federal regulatory acts and tribunals. The Interstate Commerce Act (1887) and the Elkins Amendment (1903), the Hepburn Act (1906), the Mann Act (1910), and the Cummins Act (1915) are all thoroly covered.

The widest latitude of discussion and questioning will be allowed. Students will be allowed and invited to present actual pending disputes for discussion and advice as to proper procedure to be followed.

Two credits (one evening a week); first semester. HOUCK.

Note.—Railway Traffic and Rates (Railway Problems), Course 71, shown on page 34, should be taken simultaneously with this course and as an integral part of the instruction in this subject. The purpose of this course is to enable the layman to handle intelligently the numerous problems continually arising between shipper and receiver of goods and the carriers. The student will be given a working knowledge of the many principles the application of which will save much money and endless annoyance in the daily application of the principles.

ECONOMICS AND COMMERCE

41 (1a). ELEMENTS OF ECONOMICS. Utility and valuation; price and the laws of price as applied to competitive and monopolistic conditions;

price and the cost of production; the factors of production; the law of diminishing returns; division of labor and its relation to the development of industry; the forces and factors involved in the concentration of industry, including the difference between the agricultural and the mechanical industries; wages, rent, interest, capitalization, enterprise, and business profits; finally, some attention is given to money, credit, banking, and international trade. Two credits (one evening a week); first semester. Fee, \$5.00 a semester. GESELL.

This course aims to ground the student in principles that are basic in all economic discussions. The study naturally centers in value and the laws of valuation under the various applications.

- 42 (3a). PRACTICAL ECONOMIC PROBLEMS (ADVANCED ECONOMICS). Taxation—the tariff, general property tax, corporation taxes, income taxes; labor problems—unionism, trade agreements, strikes and lock-outs, law in reference to labor unions, injunctions, employers' liability, workmen's compensation; railway problems—theory of rate-making, state and federal control; monopoly problems—economics of big business, intensive study of U. S. Steel Corporation, Sherman Anti-Trust Act, and important legal decisions relating to restraint of trade. Two credits (one evening a week); second semester. GESELL.

The aim of this course is to study economic principles in their relation to some of the leading questions of today.

43. BUSINESS ORGANIZATION. A study of the organization of industry as a whole, and the relationship of different types of business. The organization of typical business units, with reference to, first, the organization of the ownership (with special reference to the corporation), the promotion of corporations, the corporation charter, financing the corporation, the function of the underwriters, a classification of stocks and bonds, the comparison of a few typical state corporation laws; second, the internal organization of typical concerns with reference to a division of authority and responsibility; sales organization, sales planning, sales management, the organization of the advertising department, credits and collections, the organization of the production department, Taylor's system of scientific management. Emerson's efficiency system, wage systems and their relation to efficiency. Two credits (one evening a week); second semester. PRESTON and special lecturers.

51. ELEMENTARY ADVERTISING. This course is intended for those who desire sufficient knowledge of the elements of advertising to prepare reasonably satisfactory copy for newspapers, magazines, street car cards, circulars and booklets. The fundamental elements of display, layout, headings and copy are carefully outlined and the student is given practice in the preparation of advertisements. One evening a week; first semester. MARTIN.

This course is intended to acquaint the student with what may be called "the tools of advertising" before he undertakes either of

the two advanced courses in the planning and preparation of advertising campaigns.

52. NATIONAL ADVERTISING. A study of advertising from a new angle. The student puts himself in the place of one having a product for sale, and from the first lesson to the last each lecture is so planned as to give the methods pursued in conducting the many different steps in an advertising campaign.

The student first analyzes the product from the standpoint of its advertisability. He considers the planning of a trademark, the organization of the sales forces, the selling points, the prices and the profits. He then thoroly analyzes the market, chooses the advertising mediums most adaptable to his particular campaign, and decides on the appropriation.

Students will be furnished with pamphlets for these lectures which will give reference to practically everything which has so far been published on subjects taken in the course. In this way the experience of probably 300 of the leading advertising men of this country will be available to the student. Two credits (one evening a week); second semester. MARTIN.

53. RETAIL ADVERTISING. In this course the student conducts an advertising campaign for a retailer under the same general plan as in Course 52 for a manufacturer. The student is shown the relation of advertising to the different departments of a great department store. He is also shown how some of these same principles may be adopted for the smallest of specialty stores. He is shown where the advertising manager gets his ideas and how they are developed into the finished advertisement—what pays and what does not pay. One evening a week; second semester. LEE.

61. SALESMANSHIP. A course for insurance men, specialty men, traveling salesmen. Lectures and demonstrations on the principles underlying successful salesmanship, as follows: the proper approach; securing attention; arousing interest; creating desire; closing the sale; the psychology of salesmanship; the use of suggestion in selling; the use of argument. One evening a week; each semester. CORBETT, SCHONEK.

The chief feature of the work will be the demonstration sales. So far as possible each student will be given an opportunity to take part in a sufficient number of demonstrations that he may apply the principles laid out in the course.

- 71 (73). RAILWAY TRAFFIC AND RATES. Theory of railroad rates; freight classifications; "make-up" of tariffs, both local and joint; authorities under which joint tariffs are published; rail and water versus all-rail rates; basis for principal present-day rates; car service and efficiency; fast freight lines, tariffs and guide of billing books; privileges, "transit and storage"; principal commodity rates—lumber, live stock, grain products, etc.; conditions governing proper issuance of bills of lad-

ing; tracing of freight; methods of compiling and presenting claims; conditions imposed by federal and state laws on the acceptance of freight; study of conference rulings of the I. C. C.; federal control—Interstate Commerce Act. The course is built on practical lines and is intended to assist the railroad or commercial traffic man to become familiar with the technicalities and the problems connected with an important branch of business service. Four credits (one evening a week); both semesters. KUEMPEL.

72. RAILWAY TRAFFIC AND RATES (2). (LEGAL PHASES). For description see Course 35, Business Law "E". Two credits (one evening a week); first semester. HOUCK.

ENGLISH AND SPANISH

81. BUSINESS ENGLISH. Not a lecture course nor a dry, prosy study of technical English grammar and composition, but a new, interesting and practical application of the custom of our speech to every-day conversation and writing. The letter will be used as the basis of all written work because it is the form most common in business and is so intimate and personal that fundamental principles are more quickly discovered and definite results more easily obtained. Special attention will be given to letters of application, complaint, collections and credit, and other forms of commercial correspondence that do not deal directly or indirectly with sales. Students will be expected to write letters and take their part in the weekly discussion. Some knowledge of English grammar and composition is a prerequisite to this course. One evening a week; first semester.
82. SALES CORRESPONDENCE. Studying to put "pull" into sales letters is the purpose of this course. The work is not based on theories, but upon the practical application of fundamental principles. A careful analysis is made of letters that have been big winners and a knowledge of the psychology of sales correspondence is secured and then practically applied. Letters written by students and actually used in sales campaigns or in their daily office work are studied, criticized, and tested. The work is made intensely practical and is vitally interesting because it deals with the daily difficulties and problems of the student. Every phase of sales correspondence is carefully investigated, studied, and worked out in letters so that every effort is put forth to make the course broad, suggestive, practical. A course in Business English or its equivalent is a prerequisite to this work. One evening a week; second semester.
83. PUBLIC SPEAKING. For description see Department of Collegiate Instruction. One evening a week; both semesters. RARIG, GISLASON.
90. COMMERCIAL SPANISH. For description see Department of Collegiate Instruction. One evening a week; both semesters.

DEPARTMENT OF ENGINEERING INSTRUCTION

The increase in the number of students in the extension engineering classes last year indicates the importance of this work. The demand for men specially trained in engineering has been steadily increasing each year. Every branch of the profession has been calling for the services of trained men. By trained men is meant those who can plan work and use good engineering judgment in any given project.

In the past, the General Extension Division has offered various subjects covering the engineering field. While each of these subjects is important, it was found that many persons registered who could not take the work with any great profit to themselves because of inadequate preparation.

This fact has now led the General Extension Division to offer groups of courses in Architecture, Civil Engineering, Electrical Engineering and Mechanical Engineering. These course groups are arranged to be completed in either two- or three-year periods and are planned primarily for workers in industrial establishments.

The subject of engineering is one that requires very thoro study, and no step should be neglected. These courses have been laid out with great care, and are especially adapted to the needs of men working in shops and other industrial and manufacturing establishments, to the end that such men may have added to their practical training, a technical and theoretical knowledge which will enable them to advance more rapidly in their chosen line of work.

It is desirable that students should consult with the Director of the General Extension Division before taking up any course, so that they may have proper guidance and direction.

Students who have had sufficient preparation need not start at the beginning, but may take up the work at the point where they can pursue it with advantage.

These courses also offer an opportunity to college graduates, who may wish to specialize in some subject not covered in their regular college work.

When the student completes any one of these consecutive courses, a certificate to that effect from the University of Minnesota will be given.

Unless otherwise stated herein the fee for a single course meeting one night a week is \$7.50 a semester; for two courses, \$12.00 a semester; for three courses, \$15.00 a semester.

The following courses, arranged to be completed in three years of two evenings a week, may also be finished in two years of three evenings a week. The work is divided into two semesters per year. Each semester of the Engineering Extension classes is twelve weeks long; but the classes in Shop Mathematics and Elementary Electricity continue for sixteen weeks.

ARCHITECTURE

FIRST YEAR

First Semester

Elementary Architectural Design
Freehand Drawing

Second Semester

Elementary Architectural Design
Architectural History

SECOND YEAR

First Semester

Intermediate Architectural Design
Shop Mathematics

Second Semester

Intermediate Architectural Design
Mechanics, Strength of Materials

THIRD YEAR

First Semester

Advanced Architectural Design
Structural Design

Second Semester

Advanced Architectural Design
Reinforced Concrete

CIVIL ENGINEERING (For Office Men)

FIRST YEAR

First Semester

Shop Mathematics
Drawing: Working Drawings

Second Semester

Shop Mathematics—Advanced
Structural Drafting

SECOND YEAR

First Semester

Applied Mechanics
Elements of Structural Design

Second Semester

Strength of Materials
Structural Design

THIRD YEAR

First Semester

Reinforced Concrete
Roof Trussed Bridges—Design

Second Semester

Reinforced Concrete Design
Bridge and Building Design

CIVIL ENGINEERING (For Field Men)

FIRST YEAR

First Semester

Shop Mathematics
Lettering and Sketching

Second Semester

Plane Geometry and Trigonometry
Mapping

SECOND YEAR

First Semester

Plotting and Calculation
Plane Surveying

Second Semester

Stadia and Topographical Surveys
Curves and Earthwork

THIRD YEAR

First Semester

Highways
Municipal Engineering

Second Semester

Railways
Municipal Engineering

ELECTRICAL ENGINEERING

FIRST YEAR

First and Second Semesters

Shop Mathematics

Elementary Electricity

SECOND YEAR

<i>First Semester</i>	<i>Second Semester</i>
Alternating Currents	Alternating Currents
Mechanical Drawing	Mechanical Drawing
or	or
Applied Mechanics	Strength of Materials

THIRD YEAR

<i>First Semester</i>	<i>Second Semester</i>
Direct and Alternating Current Machinery	Central Power Stations
or	or
Telephony	Telephony
Steam Boilers and Engines	Engine Testing
or	or
Electrical Measurements	Electrical Measurements

Alternates in the third year will be given only every other year.

MECHANICAL ENGINEERING

FIRST YEAR

<i>First Semester</i>	<i>Second Semester</i>
Shop Mathematics	Shop Mathematics—Advanced
Mechanical Drawing	Shop Drawing

SECOND YEAR

<i>First Semester</i>	<i>Second Semester</i>
Applied Mechanics	Strength of Materials
Advanced Shop Work	Gas Engines
or	or
Elementary Electricity	Plumbing

THIRD YEAR

<i>First Semester</i>	<i>Second Semester</i>
Shop Management and Pattern Construction	Steam Boilers
or	or
Steam Engine and Engine Testing	Central Stations
Heating and Ventilation	Alternating Currents
or	or
Mechanical Equipment of Buildings	Elementary Machine Design

1. ARCHITECTURAL HISTORY. Twelve lectures illustrated with lantern slides, covering the ancient and Renaissance periods. One evening a week; second semester. Fee, \$5.00 a semester. MANN.
2. ELEMENTARY ARCHITECTURAL DESIGN. Shades and shadows and wash rendering. Architectural elements such as doors, windows, moldings, and the architectural orders; lectures and drawing. Open only to high-school students who have had mechanical drawing, or to those who have had one year or more in an architect's office, or who have had equivalent experience. Two evenings a week; both semesters. Monday and Thursday evenings, 7:30-9:30. Fee, \$7.50 a semester. FORSYTHE.

3. INTERMEDIATE ARCHITECTURAL DESIGN. Regular Class B "Analytique" or Order Problems of the Society of Beaux Arts Architects. Open only to those who have completed Course 1, or who have had two years or more in an architect's office, or who have had equivalent preparation in an architectural school. Two evenings a week; both semesters. Monday and Thursday evenings, 7:30-10:00. Fee, \$5.00 a problem, or \$10.00 a semester. JONES.
4. ADVANCED ARCHITECTURAL DESIGN. Class B, Plan Problems, and Class A, Problems of the Society of Beaux Arts Architects. Open only to those who have completed the required "Analytique" or Order Problems, or to those who have had one or more years of design in an architectural school. Two evenings a week; both semesters. Monday and Thursday evenings, 7:30-10:00. \$5.00 a problem or \$10.00 a semester. MANN.

Note.—Regular instruction will be given on Monday and Thursday evenings, but students in these classes may work in the drafting rooms of the architectural department on other evenings, except Sunday.
5. MAP DRAWING. (a) Farm and city plats. (b) Real estate display maps. (c) Landscape architects' maps. (d) Topographic and hydrographic symbols. One evening a week; second semester. Fee for course, \$7.50 a semester. ZELNER.
6. LETTERING AND TITLES FOR ENGINEERS. Principally freehand Reinhardt lettering. Title lay-outs and lettering. One evening a week; first semester. Fee for course, \$7.50 a semester. ZELNER.
7. PLANE SURVEYING. Elements of plane surveying relating to methods of chain, compass, transit, and stadia surveys; methods of keeping field notes; determination of area of irregular plots; care, use, and adjustment of instruments; methods of subdivision of the United States public lands. One evening a week; first semester. Fee, \$7.50 a semester. CUTLER.
8. CONCRETE MATERIALS: SELECTION AND TESTS. This course will cover the selection of materials entering into concrete, their properties and the tests to be applied. A study will be made of the proper combinations to obtain the best mixtures for given constituent materials at the lowest cost. Local materials will be used and those pursuing the course will make their own specimens and perform all the tests. One evening a week; first semester. Fee, \$7.50 a semester. McMILLAN.
9. STRUCTURAL DESIGN. This course will include a treatment of structural mechanics and stress computation, and the elements of the principles and practice governing the design of tension and compression members, beams, girders, and columns. Prerequisite: An elementary working knowledge of mathematics through trigonometry, and some knowledge of elementary physics. One evening a week; both semesters. Fee, \$7.50 a semester.

10. **REINFORCED CONCRETE.** Covers the elements of the theory and practical design of reinforced concrete structures including floors, roofs, walls, columns, foundations, and retaining walls. One evening a week; both semesters. Fee, \$7.50 a semester. .
11. **ELEMENTARY ELECTRICITY.** This course will start with the simple laws of magnetism and advance through the theory of direct current machinery. Special attention will be given to direct current motors and generators, armature windings, commutators, and wiring diagrams. The course will be of value to those who wish to take up the study of alternating current machinery and power plants. Experiments will be made throughout the course. One evening a week; both semesters. Fee, \$5.00 a semester. EDWARDS.
12. **ELEMENTS OF ALTERNATING CURRENTS.** An experimental study of alternating currents, including the modifications of Ohm's law to include effects of inductance and capacity, the fundamental principles of the impedance coil, transformer, generator, motor, telephone transmitter and receiver, and the like. The treatment will lead up gradually from simple explanations, and the necessary mathematics will be developed as required. One evening a week; both semesters. Fee, \$7.50 a semester. TURNER.
13. **DIRECT AND ALTERNATING CURRENT MACHINERY.** The operation and maintenance of direct and alternating current generators, motors and electrical measuring instruments. A textbook by J. H. Morecroft will be used. One chapter will be taken each week, and a number of experiments will be made throughout the course. One evening a week; first semester. Fee, \$7.50 a semester. RYAN.
14. **POWER STATION ELECTRICAL APPARATUS.** A study of the problems involved in the operation and maintenance of direct and alternating current generators and motors, switchboards, electrical measuring instruments, and storage batteries. This course is designed for men connected with central stations and isolated plants. One evening a week; second semester. Fee, \$7.50 a semester. RYAN.
15. **ELEMENTS OF TELEPHONY.** Nature of voice sounds, construction and operation of receivers and transmitters, reading blue-prints and circuits, magneto and central-energy circuits, the electro-magnet as used in telephony, batteries and other generating apparatus, signalling apparatus. Some previous knowledge of alternating currents is desirable, but not absolutely necessary. The treatment will be elementary, using only simple mathematics. Experimental illustrations will be given so far as practicable. One evening a week; second semester. Fee, \$7.50 a semester. SHEPARDSON.
16. **SHOP MATHEMATICS.** This course is designed to meet the needs of shop men, and affords an opportunity to take up engineering work of a higher grade. Practical shop problems will be thoroly discussed.

This course together with one in drafting is essential for all other engineering branches. It will cover the subject of fractions, decimals, percentage, weights of materials, areas and volumes, thread cutting, gearing, belts and pulleys, the milling machine, and a general drill in equations and the use of formulae. One evening a week; both semesters. Fee, \$5.00 a semester. EDWARDS.

17. **TRIGONOMETRY.** This course is designed for those who have had the subjects of algebra and geometry and wish to pursue civil engineering studies. The solution of right and oblique triangles will be thoroly discussed and practical plane surveying problems will be given special attention. One evening a week; both semesters. Fee, \$5.00 a semester. EDWARDS.
18. **ELEMENTARY APPLIED MECHANICS.** A short, practical course in elementary mechanics designed to meet the needs of students who have had a limited training in mathematics. Numerical calculation, simple graphical calculations, forces, simple machines, work, power, energy, strength of materials, elementary hydraulics and pumps. One evening a week; first semester. Fee, \$5.00 a semester. BROOKE.
19. **STRENGTH OF MATERIALS.** An elementary course on the strength of materials, designed to follow the course in applied mechanics. The subjects to be treated are: the properties of materials, stress and strain, elastic and ultimate strength, deformations, principle of moments, moment of inertia, simple stresses, shear, riveted joints, the general elementary theory of beams, columns, and shafts. One evening a week; second semester. Fee, \$7.50 a semester. BROOKE.
20. **ENGINE AND POWER PLANT TESTING.** This course is intended for stationary engineers who wish to become more efficient in their line of work. The course will consist of lessons supplemented by experimental demonstrations illustrative of certain portions of the work. Actual problems arising in power plant testing will be worked out in class with complete explanations and instruction for their solution. The laws of mechanics, heat, power, work, and energy will be applied to engine and power plant testing. One evening a week; first semester. Fee, \$7.50 a semester. SHOOP.
21. **STEAM BOILERS AND ENGINES.** Theory and practice of steam-boiler operation; settings and accessories; type of boilers, chimneys, smoke prevention, mechanical stokers and economizers. Mechanism of the steam engine, work in the cylinder, steam distribution, effect of reciprocating parts. Indicator and indicator cards. Horsepower from cards; valve diagrams and valve setting. Exercises and problems. One evening a week; second semester. Fee, \$7.50 a semester. MARTIN.
22. **PATTERN MAKING.** A series of lessons on the theory and practice of pattern making. Open to mechanics and apprentices who are able to

take the work with profit to themselves. A further course is offered to teachers who are now teaching manual training and desire to take up a more advanced branch of the work. This course can also be taken advantageously by those of mature years who wish to become teachers of manual training. One evening a week; first semester. Fee, \$7.50 a semester. RICHARDS.

23. PLUMBING. This course is designed to meet the needs of the practical shop man and will cover the principles of plumbing and the best practice in use at the present time. It is hoped that a standard text will be available. One evening a week; second semester. Fee, \$7.50 a semester. MARTENIS.
24. HEATING AND VENTILATING. The course will cover present heating and ventilating practice and is designed for heating contractors and others desirous of obtaining a fundamental knowledge of the subject. The plan of instruction includes a study of heat; methods employed for heating and ventilating buildings of various kinds; piping systems and temperature regulation. One evening a week; first semester. Fee, \$7.50 a semester. MARTENIS.
25. GAS ENGINES AND PRODUCERS. Principles of operation of two-cycle and four-cycle engines; cylinder construction and arrangement, system of speed control, ignition, and cooling. Application of the indicator and consideration of indicator diagrams. A study of the power gas producer, including suction and pressure types for various fuels; construction and operation of the generator and accessory apparatus. Application to various industrial purposes. One evening a week; first semester. Fee, \$7.50 a semester. MARTIN.
26. MECHANICAL DRAWING. How to make drawings and how to read them. This course will be given to meet the needs of the individual. It includes the making of drawings or reading from blue prints or both. The work is intended for beginners. One evening a week; both semesters. Fee, \$7.50 a semester. FRENCH.
27. MECHANICAL EQUIPMENT OF BUILDINGS. This course covers the necessary calculations for, and the layout on, the plans of the complete mechanical equipment of the various types of buildings with proper specifications. The various heating and ventilating systems together with the proper plumbing fixtures will be taken up in detail. Specifications covering the equipment laid out will be written. One evening a week; first semester. ROWLEY.

COURSES IN LAW

SCOPE OF COURSE

University Extension courses in substantive law are given under the immediate direction of the Faculty of the Law School. They are designed primarily for the benefit of those persons who desire legal instruction for the purpose of better qualifying themselves for business careers. They do not lead to a degree.

TIME AND PLACE OF INSTRUCTION, AND TEXTBOOKS

All instruction in Law will be given at the Law Building of the University of Minnesota, Minneapolis. Class exercises will be held on the evening of each week day, excepting Saturday, during the session, beginning at 7:30 and extending not later than 9:30.

For the present, at least, textbooks used by students in pursuing the courses will be loaned by the University free of charge, upon payment of a deposit fee of \$5.00. This deposit will be repaid upon the student's returning in good condition all of the books loaned to him during the year.

REQUIREMENTS FOR ADMISSION

The requirements for admission to the Extension courses in Law are in general the same as for the day courses in the College of Science, Literature, and the Arts; namely, either (1) passing special entrance examinations, (2) graduation from an accredited high school, or (3) evidence by certificate, of equivalent scholastic preparation.

By special arrangement, persons who are at least twenty-one years of age, and who do not comply with the general requirements as above outlined, may enter the evening courses in Law. In such cases, it will be necessary for applicants to satisfy the department that they are adequately fitted to carry the proposed work.

UNIVERSITY CREDIT FOR EXTENSION WORK IN LAW

Students who show special aptitude may receive credit in Extension courses towards a degree in Law. Any student who has completed with marked success any Extension course will be admitted to the regular Law School examination in that subject, and, if successful, will be given full credit. After securing credit for all the subjects taught in the Extension course in Law, and thereupon completing at the Law School of the University of Minnesota the various procedural courses required for a degree, a student will be entitled to graduation, provided that previous to taking these examinations he could have qualified as a regular student in the Law School by having completed two years of academic work in an institution of collegiate rank. It is possible also for a student who successfully completes the Extension courses in Law to qualify for passing the bar examination for admission to practice, by taking the regular practice work in the Law School during an additional year.

EXAMINATIONS AND CERTIFICATES

Upon completion of each of the courses above described an examination will be held. Students who successfully pass all examinations given during the three years' course will receive a certificate showing that they have completed the University Extension Course in Law.

FEES

The tuition fee for the regular Extension Course in Law is \$50.00 a year, payable one half at the beginning of the first semester and one half at the beginning of the second semester. Students taking less than the whole course will be required to pay at the rate of \$5.00 for each recitation a week for each semester. No other charge of any kind will be made excepting the deposit required for the safe return of textbooks loaned, as indicated above.

REGISTRATION

From September 20 to October 8 the office of the Dean in the Law Building will be open for the purpose of giving information and registering students for the Extension Law courses every evening, except Saturday and Sunday, from 7:30 to 9:30. At other times, and for further particulars apply to Director of the General Extension Division, University of Minnesota, Minneapolis.

COURSES GIVEN IN 1915-16

The complete Extension curriculum in Law will extend through three years, with six lecture periods a week each year. The courses given are described in outline below.

First Year

1. **PERSONAL PROPERTY.** This course includes a consideration of the distinction between real and personal property; the acquisition of title to personal property other than by sale; accession, confusion; gifts; finding; property rights of bailor and bailee; possessory liens and pledges. One hour; first semester. FLETCHER.
2. **CONTRACTS.** This course deals with the general principles of the Law of Contracts. The student considers full the rules governing the making of contracts, their operation and discharge, and the legal consequences of a breach of contract. The general purpose of the course is to afford a foundation for the later study of the important kinds of specific contracts, such as those of agency, bailments, partnership, commercial paper and sales, which are considered in separate courses. Two hours throughout the year. CHERRY.
3. **DOMESTIC RELATIONS.** This course treats of marriage and divorce; parent and child; guardian and ward; property law peculiar to the marriage relation; rights and liabilities of persons under the disabilities of coverture, infancy, insanity, etc. One hour; first semester. PAIGE.

4. **CRIMINAL LAW.** This course deals with the common and statutory law of crimes, its historical development and practical application. Two hours; first semester. PAIGE.
5. **AGENCY.** In this course are treated the creation of the relation of principal and agent, capacity of parties, reciprocal duties of principal and agent, respective rights and liabilities of principal and agent to third parties, including the doctrine of undisclosed principal, requisites and effect of ratification, and termination of the relation. Two hours; second semester. THURSTON.
6. **SALES.** This course includes a consideration of sales of specified goods; sales of goods not specified; reservation of title by bill of lading; effect of fraud upon the contract of sale; condition and warranties; vendor's lien; stoppage in transitu, and the Statute of Frauds. Two hours; second semester.

Second Year

7. **REAL PROPERTY.** This is a continuation of the course begun in the first year, and treats primarily of title to real estate and the principles and practice of conveyancing. Two hours; first semester.
8. **MORTGAGES.** In this course are considered the essential elements of legal and equitable mortgages, both of realty and chattels; rights of mortgagor and mortgagee at law and in equity; title, possession, dower, curtesy, waste, priorities, collateral agreements, foreclosure, redemption; extension, assignment, and discharge of mortgages. One hour; first semester. FLETCHER.
9. **CONSTITUTIONAL LAW.** This course deals with the nature of the American constitutional system, including the relation of the states to the federal government; the legislative, executive, and judicial departments, with express and implied powers of each; interstate commerce; constitutional limitations; police power; due process of law; taxation; eminent domain, etc. Two hours; second semester. FLETCHER.
10. **DOMESTIC RELATIONS.** This course is identical with that given to the first-year class as above described. One hour; first semester. PAIGE.
11. **CRIMINAL LAW.** This course is identical with that given to the first-year class as above described. Two hours; first semester. PAIGE.
12. **AGENCY.** This course is identical with that given to the first-year class as above described. Two hours; second semester. THURSTON.
13. **SALES.** This course is identical with that given to the first-year class as above described. Two hours; second semester.

Third Year

14. **REAL PROPERTY.** This course is identical with that given to the second-year class as described above. Two hours; first semester. FLETCHER.



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15. MORTGAGES. This course is identical with that given to the second-year class as described above. One hour; first semester. FLETCHER.
16. CONSTITUTIONAL LAW. This course is identical with that given to the second-year class as described above. Two hours; second semester. FLETCHER.
17. PRIVATE CORPORATIONS. This course deals with the nature, creation, and citizenship of corporations, *ultra vires* contracts and acts, stock issues, rights and liabilities of stockholders, officers and agents of corporations, and rights of creditors. Two hours; first semester. ABBOTT.
18. INSURANCE. In this course are considered the nature and history of the insurance contract; the doctrines of insurable interest, warranties and representations; waiver and estoppel; rights of parties to the contract; and construction of the standard policy. One hour; first semester. VANCE.
19. PARTNERSHIP. This course deals with the nature and formation of the partnership relation, and the rights and liabilities of the partners, both *inter se* and as to third parties. One hour; second semester. PAIGE.
20. NEGOTIABLE INSTRUMENTS. This course considers formal and essential requirements of negotiable instruments, and the nature of the liability of the respective parties thereto; acceptance; endorsement; transfer; presentment; notice of dishonor; the Negotiable Instruments Law. Two hours; second semester. PAIGE.
21. BANKRUPTCY. This course treats of the origin, history, and nature of the bankruptcy law; jurisdiction of the courts; acts of bankruptcy; practice; receivers; claims, preferences; assets, trustees; liens; adverse claimants; summary jurisdiction; crimes, composition, discharge. One hour; second semester. FLETCHER.